

WHAT IS CLAIMED IS:

*[Signature]*

1. A method of defective pixel address detection for an image sensor, comprising:

- (a) comparing a defective pixel address with a sensor address, wherein the defective pixel address is stored in a memory element in advance when the image sensor is tested;
- 5 (b) outputting a defective pixel flag if the sensor address is equal to the defective pixel address;
- (c) increasing an index value by one unit and returning to the step (a);
- (d) comparing the defective pixel address with an empty signature if the sensor address is not equal to the defective pixel address;
- 10 (e) increasing the index value by one unit if the defective pixel address is equal to the empty signature, and returning to the step (a); and
- (f) returning to the step (a) if the defective pixel address is not equal to the empty signature.

2. The method of claim 1, wherein the defective pixel address stored in the memory element is in an ascending order.

15 3. The method of claim 1, wherein the memory element is a fuse array.

4. The method of claim 1, wherein the defective pixel address stored in the memory element is in a format consisting of a row address and a column address of the image sensor.

20 5. A method of defective pixel address detection for an image sensor, comprising the steps of:

storing a plurality of defective pixel addresses during the image sensor is tested

reading a pixel address of the image sensor;

fetching one of the defective pixel addresses;

comparing the first fetched defective pixel address with the pixel address of the sensor address;

5 outputting a defective pixel flag if the pixel address is equal to the defective pixel address;

increasing an index value by one unit and fetching another defective pixel address which is indexed next to the first fetched defective pixel address;

comparing the defective pixel address with an empty signature if the pixel address is not equal to the defective pixel address;

10 increasing the index value by one unit if the defective pixel address is the empty signature, and then fetching another defective pixel address which is indexed next to the first fetched defective pixel address; and

fetching another defective pixel address which is indexed next to the first fetched defective pixel address if the defective pixel address is not the empty signature.

15 6. The method of claim 5, wherein the plurality of the defective pixel addresses are stored in a memory element.

7. The method of claim 6, wherein the defective pixel addresses stored in the memory element is in an ascending order.

8. The method of claim 6, wherein the defective pixel address stored in the memory 20 element is in a format consisting of a row address and a column address of the image sensor.

9. The method of claim 6, wherein the memory element is a fuse array.

10. A device of defective pixel address detection for an image sensor, comprising:

a memory element, for storing a plurality of defective pixel addresses during the image sensor is tested; and

5 a address comparator, coupling to the memory element, for receiving a pixel address of the image sensor and one of the defective pixel addresses, and then comparing the pixel address of the image sensor and the defective pixel addresses, wherein the address comparator outputs a defective pixel flag if the pixel address is equal to the defective pixel address.

11. The device of claim 10, wherein the memory element is a fuse array.

10 12. The device of claim 10, wherein the memory element further comprises an index for indicating a location of one of the defective pixel addresses.

13. The device of claim 10, wherein the defective pixel addresses are arranged in an ascending order in the memory element.